



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,452	03/10/2004	Sam Baghdadi	2004P03672US	4438
7590	05/23/2006		EXAMINER PATEL, VISHAL A	
Siemens Corporation Intellectual Property Department 170 Wood Avenue South Iselin, NJ 08830			ART UNIT	PAPER NUMBER
			3673	

DATE MAILED: 05/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/797,452

Applicant(s)

BAGHDADI ET AL.

Examiner

Vishal Patel

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,9-16,19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,9-16,19 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/7/06 has been entered.

Claim Objections

2. Claim 1 is objected to because of the following informalities: Claim 1, line 23, "a the", should be changed to --the--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-6, 9-16 and 19-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 8, "a rotatable body", is this body the same rotatable body mentioned in line 2 in claim 1?

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3-4, 9-11, 13-14 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gross (US. 3,575,523) in view of Bunker (US. 6,027,306).

Gross discloses a turbine engine having a seal comprising a blade (blade 13 on 11) extending radially from a rotatable body (11), a plurality of blades (16 and 17) extending radially from a stationary body (15) towards the rotatable body and generally forming at least one row of blades (a row having blades 16 and 17), a high pressure gas region in the turbine engine that is proximate to the plurality of blades extending radially from the stationary body (figure 2) and opposite to the plurality of blades extending radially from the rotatable body, a low pressure region in the turbine engine that is proximate to the plurality of blades extending radially from the rotatable body and opposite to the plurality of blades extending radially from the stationary body (figure 2), wherein the low pressure region has a pressure less than the high pressure region (figure 2). The pluralities of blades form the seal between the high-pressure gas region and the low-pressure gas region. The plurality of blades extending radially from the stationary body are positioned proximate to the blade extending from the rotatable body and are nonparallel with the blade extending from the rotatable body (the blade on the rotatable body are non parallel to the blades on the stationary body). The blade coupled to the rotatable body is positioned to direct fluids from the low pressure gas region toward the high pressure gas region to limit leakage of

Art Unit: 3673

fluids from the high pressure gas region proximate to the at least one row of the blades coupled to the stationary body to the low pressure gas region proximate to the blade coupled to the rotatable body (figure 2).

The blade extending radially from the rotatable body is aligned at an angle of between about 1 degree and about 89 degree relative to a rotational axis of the rotatable body (see angle of blade 13 in figure 3).

Gross discloses the invention substantially as claimed above but fails to disclose that plurality of blades on the rotatable body and that the blades have a height of 0.6 mm. Bunker discloses a rotatable body (22) having a plurality of blades (50) that are angled at about 1-60 degrees and the blades having a height of 0.6mm. It would have been obvious to one having ordinary skill in the art at the time the invention was made to configure the blade of Gross to be plurality of blades on the rotatable body having an angle of 1-60 degrees from the rotational axis and the blades to be 0.6mm as taught by Bunker to provide an efficient turbine engine (column 3, lines 45-50 of Bunker).

7. Claims 2, 5-6, 12 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gross and Bunker as applied to claims above, and further in view of Albers (US. 4,571,937).

Gross discloses the invention substantially as claimed above but fails to disclose that the blades (16 and 17) on the stationary body are annularly spaced or formed intermittently and having an angle of about 1-89 degrees. Albers discloses plurality of blades (5) on a stationary body (4) and the blades are angled to about 1-89 degrees from a rotationally axis (rotational axis of 2). It would have been obvious to one having ordinary skill in the art at the time the invention

Art Unit: 3673

was made to have the blades of Gross to be segmented annularly or formed intermittently to provide a turbine that has substantially no efficiency losses occurs (column 1, lines 51-52 of Albers).

Furthermore since the blades on the rotatable body of Gross and Bunker are angled between 0-60 degrees and the blades on the stationary body of Gross and Bunker can have an angle of 1-89 degrees by the teaching of Albers the blades are capable of being orthogonal to each other.

Response to Arguments

8. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Losel and Ambrosch et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is 571-272-7060. The examiner can normally be reached on 6:30am to 8:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia L. Engle can be reached on 571-272-6660. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3673

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VP
May 22, 2006

A handwritten signature in black ink, appearing to read 'Vishal Patel', with a stylized flourish at the end.

Vishal Patel
Primary Examiner
Tech. Center 3600